

STEREO CASSETTE TAPE DECK

KX-880G

INSTRUCTION MANUAL

KENWOOD

TRIO-KENWOOD CORPORATION

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86/12 11 10 9 8 7 6 5 4 3 2 1 / 85/12 11 10

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.

We appreciate your patronage and take pride in the long tradition of quality components.

So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features, and system-connection considerations, so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability, we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories and cables are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Installation notes

- Install the unit on a flat, vibration-free rigid table.
- Do not place the unit near a heat producing equipment such as a radiator. Avoid direct sunlight.
- The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).
- Do not store or use the unit in a dusty location or in a moist atmosphere. Select a location where air is well ventilated.
- Keep the unit away from a source of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.
- Operate the unit on rated power supply voltage ($\pm 5\%$). Irregular power voltage will result in incorrect operation.

DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

Before applying power

IMPORTANT!

U.S.A., and Canada

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only. These units are not equipped with an AC voltage selector switch and the discussion of such a switch that follows should be disregarded.

All other countries

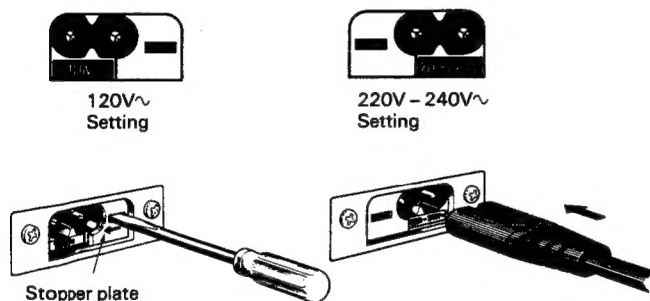
Units shipped to countries other than the U.S.A. and Canada are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

This unit operates on 120 volts or 220 – 240 volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.



1. Before plugging in this unit, make sure that the position of the AC Voltage Selector conforms to your line (mains) voltage. If not, it must be reset.
2. To reset the selector, slide the stopper plate to the opposite side with a screwdriver or other pointed tool.
3. Insert the power cord securely.

WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

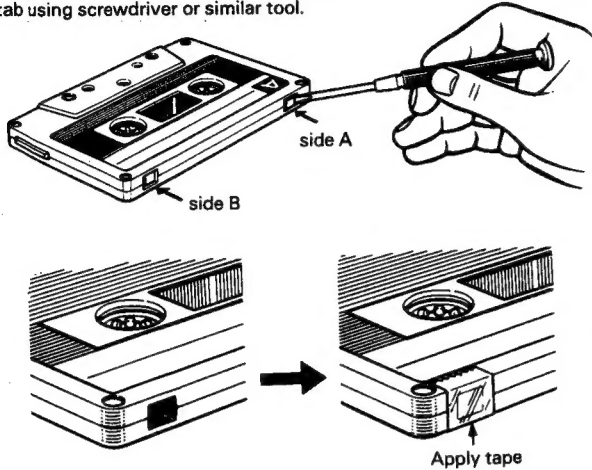
Safety precautions

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Important aspects of cassette tape

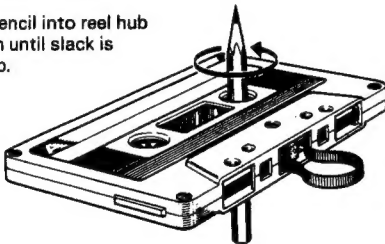
To preserve valuable recordings – Prized recordings are sometimes erased accidentally by putting deck into the record mode. To ensure protection, break off the plastic record-lockout tab for the side you wish to protect as shown. Your deck cannot be put into the record mode when this tab is broken off. Use a small screwdriver or other pointed tool to break off the tab. To re-record onto a tape, apply plastic tape to cover the detection hole.

To protect valuable recordings, break off tab using screwdriver or similar tool.

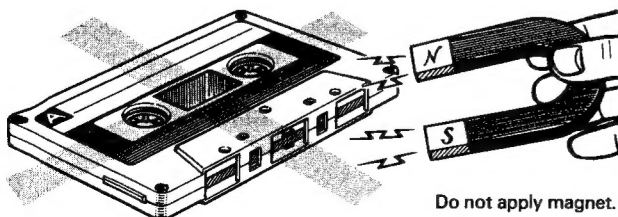


Loose tape – To prevent tape jams, inspect the cassette for loose tape before putting the cassette into your deck. Wind up loose tape using a pencil.

Insert pencil into reel hub and turn until slack is taken up.



To store cassette tape – The cassette shells and tape are liable to be damaged by heat. Do not store cassette tapes in a place exposed to direct sunlight. To protect valuable recordings, do not place cassette tapes in a magnetic field and do not place a magnet near the cassette tapes.

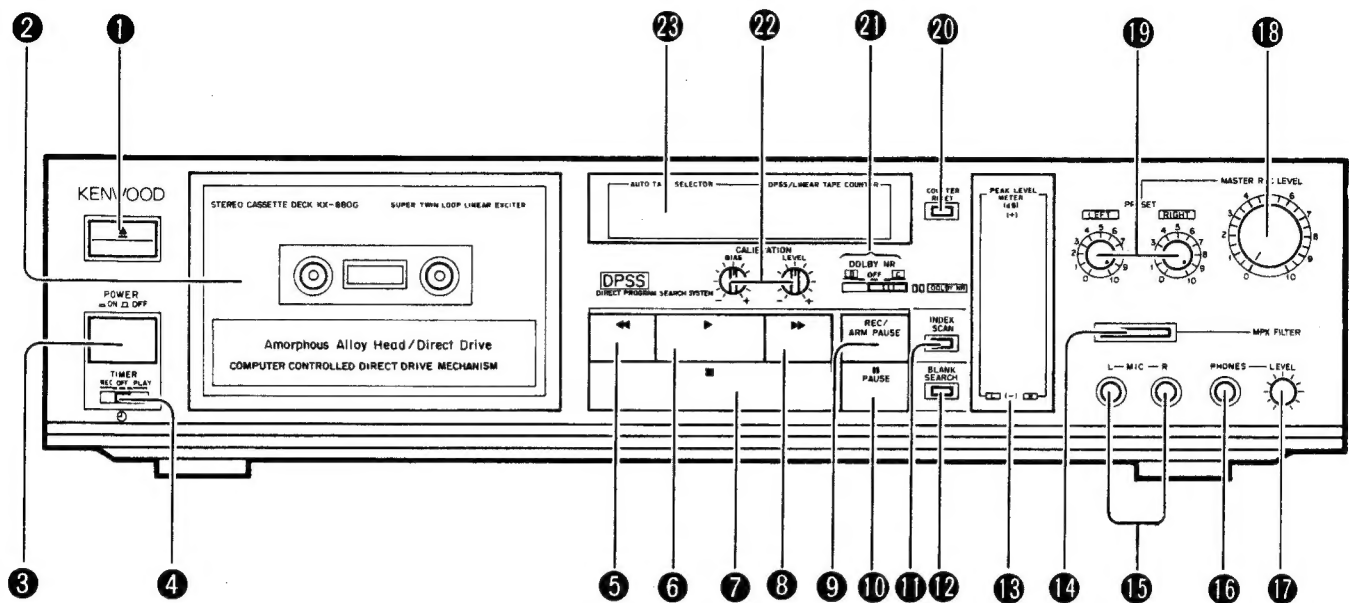


Contents

Before applying power	2
Important aspects of cassette tape.....	3
Controls, indicators and connectors	4
Connections.....	6
Tape playback.....	7
Tape Recording.....	7
Playback using DPSS	9
Maintenance.....	13
Timer stand by operation.....	13
Setting the calibration control knobs according to the type of cassette.....	14
Trouble shooting	15
Specifications	16

Controls, indicators and connectors

Numbers in front of names correspond that in the diagram. The name in the bracket shows the indication on the panel.



1 Eject key (▲)

Pressing this key opens the cassette holder.

2 Cassette holder

When the eject key is pressed, this holder opens. To close it, push the upper section of the holder until it locks.

3 POWER switch

Press this switch to turn the power ON. Pressing again turns the power OFF.

4 TIMER standby switch

Use this switch along with an audio timer when an unattended recording or timer-playback is performed. Set this switch to the REC position for unattended recording, to the PLAY position for timer-playback, and set to OFF when the timer is not used.

5 Rewind key (◀◀)

Press this key to rewind the tape from right to left at high speed; the rewind indicator (◀◀) lights.

6 Play key (▶)

Press this key to forward the tape at fixed speed and start playback; the play indicator (▶) lights.

7 Stop key (■)

Press this key to stop the tape travel.

8 Fast forward key (▶▶)

Press to advance the tape rapidly (from left to right); the fast-forward indicator (▶▶) lights.

9 REC/ARM PAUSE key

Press this key to start recording. It is not necessary to press the play key simultaneously since this unit provides the one-touch recording system. At this time, the record and play indicators light.

When this key is pressed again during recording, about 4 seconds non-recorded section is made and the tape travel will stop temporarily.

10 PAUSE key (||)

To interrupt recording or playback momentarily, press this key. When this key is pressed during playback, the play indicator flickers and the playback is interrupted momentarily. When this key is pressed during recording, the record indicator lights and the play indicator blinks so that the recording is interrupted. To release the play-pause mode, press the play key and to release the record-pause mode, press the REC/ARM PAUSE key.

11 INDEX SCAN key

Press this key to search the desired tune.

When this key is pressed, the beginning of each tune is played back for about 10 seconds.

12 BLANK SEARCH key

This key is used to search the blank section of more than 1 minute between tunes or the end of the previously recorded section, etc.

13 PEAK LEVEL METER

This indicates the peak values of the input levels when recording or output levels when playback. The peak values are held for approx. 2 seconds.

14 MPX FILTER switch

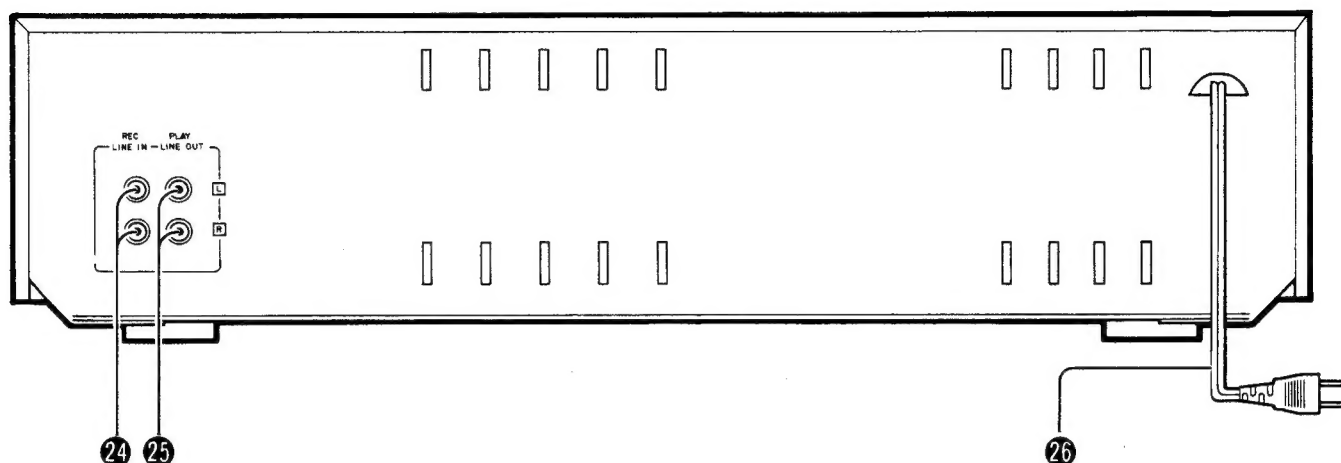
Use this switch when recording FM broadcast using Dolby NR with this switch set to ON, the 19 kHz pilot signal and 38 kHz sub-carrier signal contained in the FM stereo broadcast signals are eliminated to prevent malfunctioning of the Dolby NR circuit.

15 MIC jacks (L/R)

Plug the microphones into these jacks when recording with microphones; L for left channel and R for right channel. Use the low impedance (600 ohms) microphones.

Notes:

When the microphones are connected, the signal input from the LINE IN terminals are automatically cancelled. Disconnect the microphones before recording from LINE sources.



16 PHONES jack

Plug the stereo headphones into this jack to monitor recordings or tape playback.

17 PHONES LEVEL knob

Adjust the volume level for the headphones regardless of the recording input level.

18 MASTER REC LEVEL control knob

Adjust the recording input level with this knob. Left and right channel levels are varied simultaneously.

19 PRESET record level knobs

The signals for the left and right channels are adjusted independently with these knobs.

20 COUNTER RESET key

Press this key to reset the linear tape counter to [:00].

21 DOLBY NR select switch

Set this switch to B or C position when playback the tape recorded with Dolby NR circuit or when recording with Dolby NR circuit. B or C indicator lights according to the selected NR position.

22 CALIBRATION control knobs

Adjust the calibration level with these knobs to match with various kind of tapes as well as to get the best performance from Dolby noise reduction circuit. (See page 14.)

LEVEL: The recording signal current can be varied continuously (from -4 dB to +4 dB) according to the tape to be used.

BIAS: The bias current can be varied continuously ($\pm 10\%$) with this according to the tape to be used.

23 Display window

According to the operation mode, each indicator lights or blinks.

AUTO TAPE SELECTOR: [NOR]; [CrO₂]; [METAL]

DOLBY NR indicators: [B]; [C]

FILTER indicator:

OPERATION indicator, RECORD indicator:

MULTI WAY COUNTER indicators:

24 LINE IN terminals

Connect the Tape Rec terminals of your amplifier, etc. to these terminals using provided audio cables.

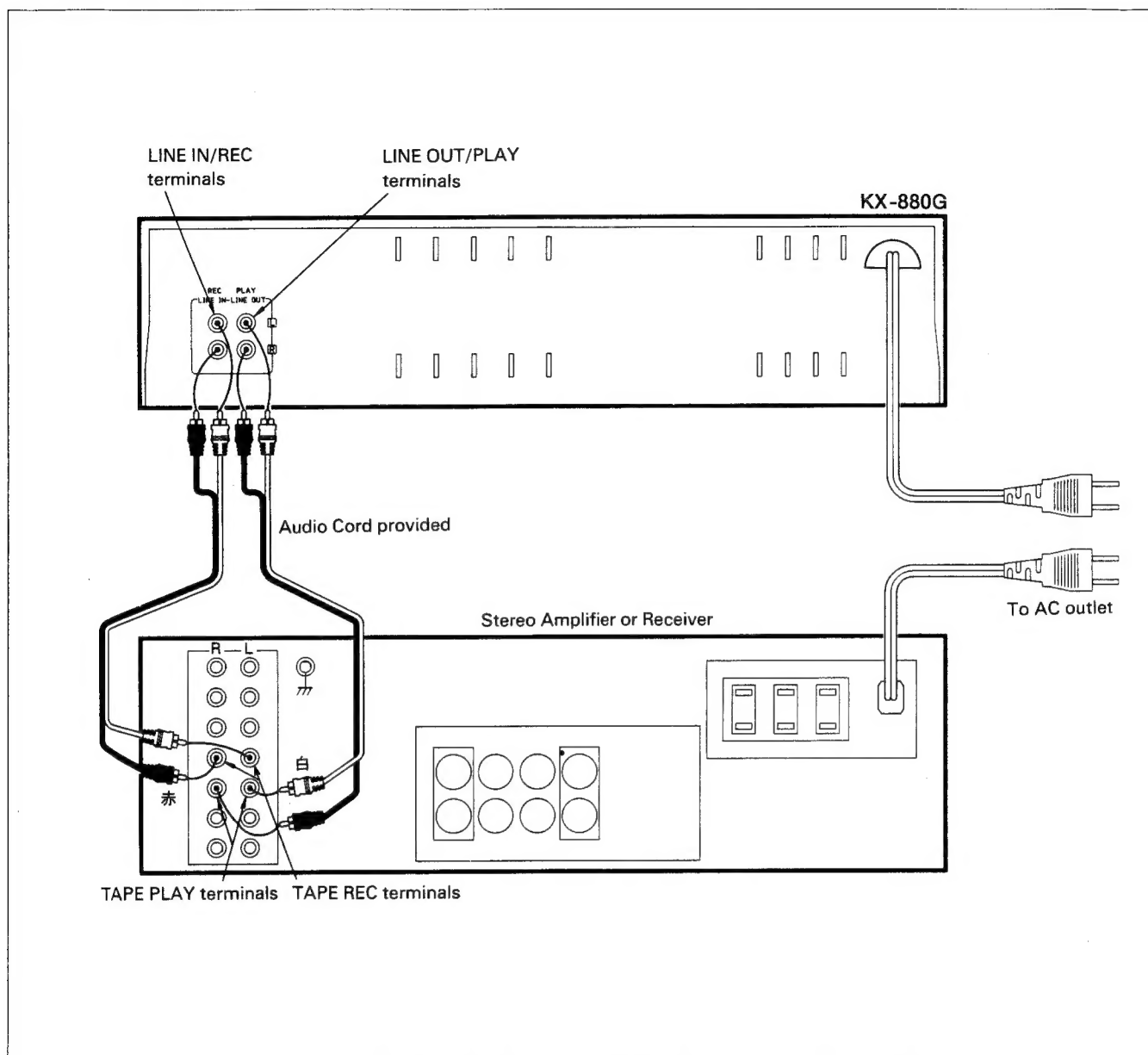
25 LINE OUT terminals

Connect the Tape Play or AUX terminals of your amplifier, etc. to these terminals using provided audio cables.

26 Power cord

Plug this into the wall outlet or AC outlet of the amplifier, etc.

Connections



Connection to Stereo Amplifier or Receiver

Connection with provided audio cords (pin plug to pin plug)

- Use the provided audio cords with RCA pin plugs on both ends when connecting to the stereo amplifier or receiver. The connection method is shown in the figure.

KX-880G Amplifier (or receiver)
 LINE OUT/PLAY ↔ TAPE PLAY
 LINE IN/REC ↔ TAPE REC

Note:

- Insert the plugs of the connection cords securely to their jacks. If not, the sound may not be present or may cause noises.

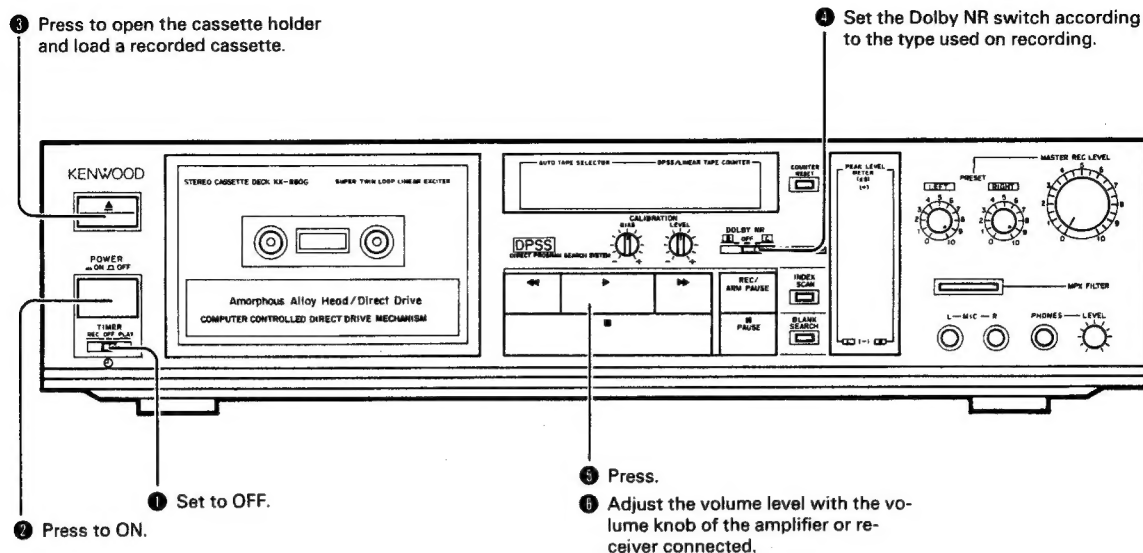
When Using the Headphones

- Use the stereo headphones for private listening or record monitoring. At this, the headphone output level can be adjusted with the PHONE LEVEL knob.

Microphones

- Your microphones should be of the low impedance (600 ohms) dynamic type. To make stereo recordings, plug microphones into the L and R MIC jacks. Adjust the recording level with the MASTER REC LEVEL control.

Tape PlaybackPerform the procedure in the numerical order.

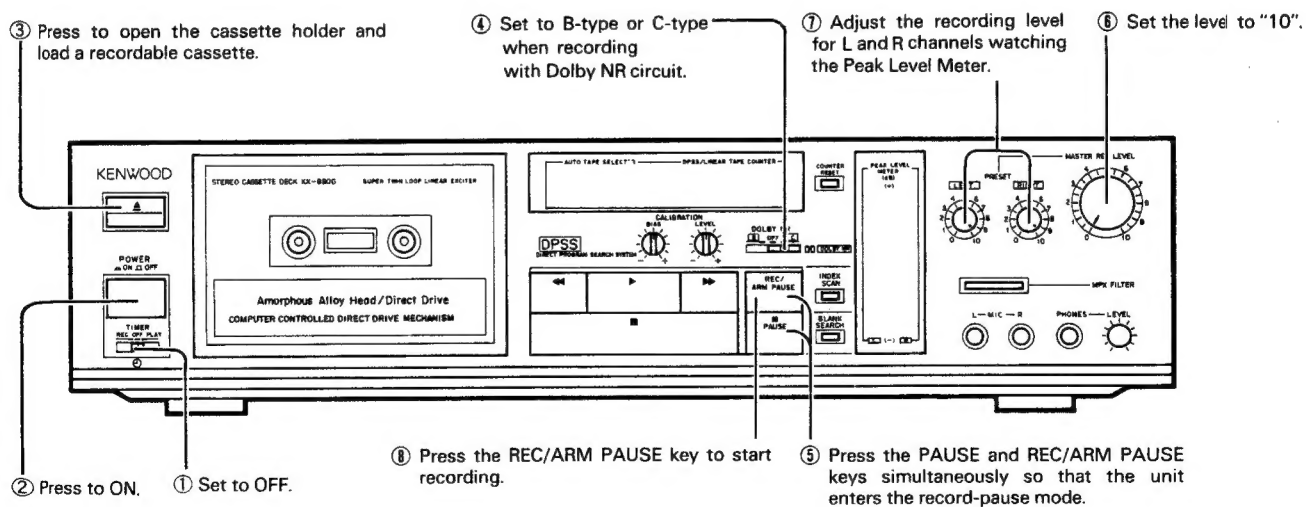


Note:

1. During the playback (including the DPSS operations) or the recording operation, the cassette holder does not open even if the eject key is pressed.
2. When the power is turned off during tape travel accidentally, turn the power on again before pressing the eject key.

Tape RecordingPerform the following procedure in a numerical order.

Select the program (Compact Disc, FM broadcast or record, etc.) to be recorded and make proper setting.



Recording level

The recording level is strongly related to sound quality, distortion, S/N ratio, frequency response, etc. When it is very high, S/N ratio is improved but distortion and frequency response are degraded. When it is too low, the opposite results. The best recording levels can be determined by referring to the fluorescent PEAK LEVEL METERS. It is easy to re-

cord a disk or FM broadcast because their sound level is limited to a certain extent. However, it is difficult to set the recording level when recording live sounds or when recording from an open reel tape on which live sound is recorded because the sound level varies within a very wide range. The following general statements can be made about setting recording levels.

■ Recording levels appropriate for metal tapes

Adjust the recording level so that the fluorescent PEAK LEVEL METERS read "+4" through "+6" when a high level signal is recorded. (There is no problem with their reading "+8" momentarily.)

■ Tapes other than metal tapes

Appropriate recording level:

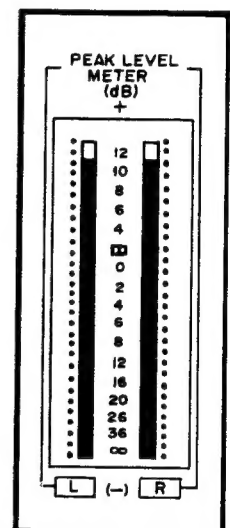
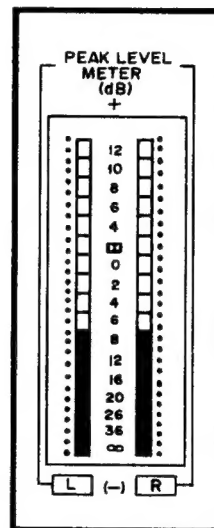
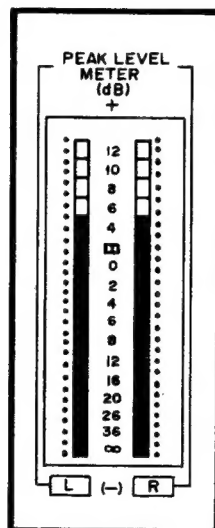
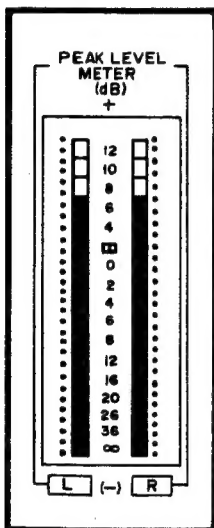
When the fluorescent PEAK LEVEL METERS read "0" through "+4" at a high level signal, the recording level is appropriate. There is no problem with the meters reading "+6" for a moment.

Too low a recording level:

When the fluorescent PEAK LEVEL METER readings are always within the lower half of the range, tape noise will be pronounced.

Too high a recording level:

When the fluorescent PEAK LEVEL METERS read always exceeds "+10" and frequently exceeds "+12", recorded sound will be distorted.



- The optimum recording level varies according to the sound source and the type of tape. Find out the optimum recording level by recording and playing several times.
- Fluorescent PEAK LEVEL METER readings during playback may differ from those observed during recording. This is related to tape sensitivity and is no problem.

Playback Using DPSS

DPSS (Direct Program Search System) uses a microcomputer to allow the following convenient operations by the command of operation keys:

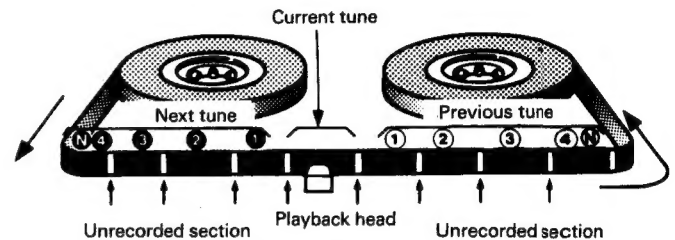
1. Selects only the desired tunes from the pre-recorded tape..... Skip select
2. Plays the same tune repeatedly One-tune repeat
3. Plays while fast-forwarding the non-recorded sections of more than about 10 seconds..... Dash & Play
4. Rewinds the tape and plays from the very beginning Rewind Play
5. Plays the beginnings of each tunes..... Index scan
6. Searches the unrecorded sections..... Blank search
7. Goes back to the beginning of the recording tune and

sets in record-pause mode..... Re-Rec Standby
Since the DPSS circuit functions by detecting the non-recorded section of more than approx. 4 seconds between tunes, the following tapes may cause the DPSS not to work properly, be careful.

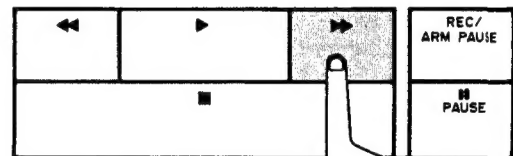
1. Tapes having more than 4 seconds interval during selection such as conversation.
2. Tapes having extremely low-level portions or non-recorded sections during tunes such as classical music.
3. Tapes having too noisy section recorded between tunes.
4. Tapes having less than 4 seconds blank sections between tunes.
5. Tapes recorded in extreme low levels.

● DPSS forward selection (FF DPSS)

1. Press the play key (▶) to start playback.
2. If the desired tune is the fourth one following the current tune, press the fast forward key (▶▶) 4 times. Press the fast forward key 3 times to listen to the third tune, and press it 5 times to listen to the fifth tune. In the same way, up to 16 tunes can be selected.
3. The right and left numbers indicated by the DPSS COUNTER are increased each time the fast forward key is depressed when a program selection is made. Match the left number to that of the program you want to hear, the right number indicated by the counter is reduced each time the microcomputer detects an unrecorded section between tunes during fast forward operation.
4. After the microcomputer has found the desired tune, the counter returns to the TAPE COUNTER mode.



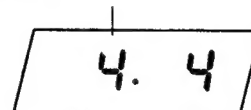
- Next tune: Tune which is not played back yet.
- Previous tune: Tune which has been played back.



During playback, press the fast forward key (▶▶) to match the number on the left of the counter.

FF DPSS

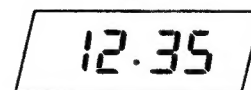
Align this number with the number of desired tune.



Example:
To select 4th tune from the current one.



The number on the right decreases.

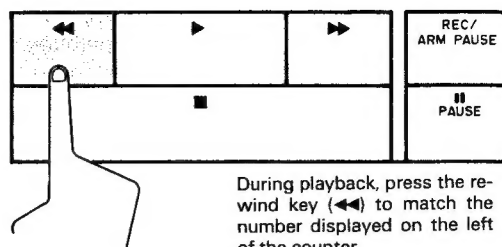


Returns to the TAPE COUNTER after the desired tune is reached.

DPSS forward selection (FF DPSS)

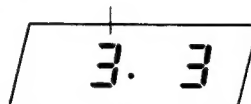
● DPSS reverse selection (REW DPSS)

1. Press the play key to start playback.
2. If the tune you want to hear is the fourth one (including the current tune) press the rewind key (◀◀) 4 times. Press the rewind key 3 times to listen to the third tune, and press it 5 times to listen to the fifth tune. In the same way up to 16 tunes can be selected.
3. The right and left numbers indicated by the DPSS COUNTER are increased each time the rewind key is depressed when a program selection is made. Match the left number to that of the tune you want to hear. The right number indicated by the counter is reduced each time the microcomputer detects an unrecorded section between tunes during rewind.
4. After the microcomputer has found the desired tune, the counter returns to the TAPE COUNTER mode.



During playback, press the rewind key (◀◀) to match the number displayed on the left of the counter.

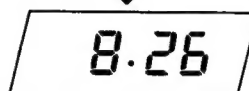
Align this number with the number of desired tune.



Example:
To select the third tune before the current tune (including current tune)

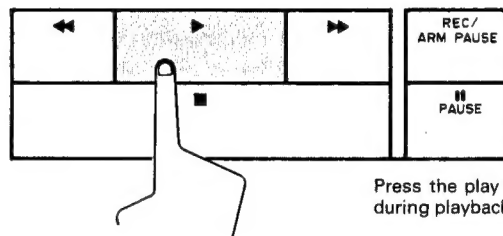


The number on the right decreases.

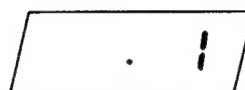


Returns to the TAPE COUNTER after the desired tune is reached.

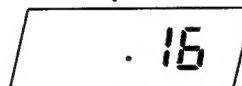
DPSS reverse selection (REW DPSS)



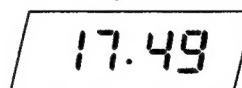
Press the play key (▶) during playback.



"1" is displayed when the repeat playback of the current tune is designated.





Indicates 16th repeat playback.





After the current tune is played back 16 times, the unit enters the normal playback mode and the counter returns to the TAPE COUNTER mode.

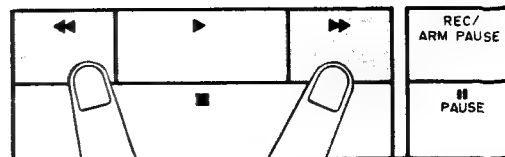
Repeating the current tune

● To playback the current tune repeatedly (when the one tune is to be repeated)

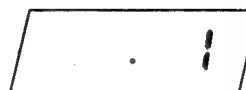
1. Press the Play key twice;  is indicated at the right side of the DPSS counter so that the repeating command for the current tune is accepted.
2. During playback, press the Play key once for the one-tune repeat operation.
3. After the repeat operation starts, the number of the right side of DPSS counter is increased at when the tape is rewound after playback the current tune to show the times of repetition.
4. This repeat playback will be repeated up to 16 times unless the other operation is performed.
5. After 16-time repetition of the current tune is finished, the normal playback is resumed.
6. During the one-time repeat play, the repeating time can be added. Press the play key (▶) again so that the  display is indicated on the right side of DPSS counter. One-time repeat play will begin from the first repetition.
7. To release the one time repeat play, press the stop key (■).

To playback Dash & Play operation (fully repeat playback on one side)

1. Press the fast-forward key (▶▶) and the rewind key (◀◀) simultaneously;  is displayed on the right side of DPSS counter and the Dash & Play operation starts.
2. When the Dash & Play operation started, the number on the right side of DPSS counter will be increased at the moment the tape is rewound after the playback is performed once. This shows the repetition time of the current play.
3. This Dash & Play operation will be repeated up to 16 times unless the other operation is performed.
4. After 16 times repetition is over, the tape will be rewound automatically and stopped by auto shut-off function.
5. During operation, the repeating time can be added. Press the fast-forward key (▶▶) and the rewind key (◀◀) simultaneously so that  is displayed on the DPSS counter again. Dash & Play operation will be started from the first turn.
6. To release Dash & Play operation, press the stop key (■).



Press the fast forward key (▶▶) and rewind key (◀◀) simultaneously.

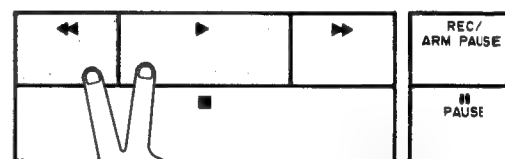


When the Dash & Play operation is commanded "1" is displayed on the right side.



When 16th Dash & Play operation is over, tape will be rewound automatically and then stop by auto shut-off mechanism.

Dash & Play



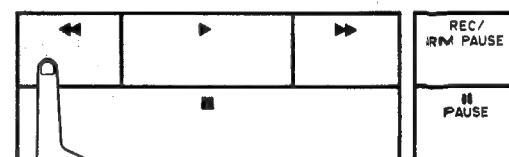
Press the play key (▶) and rewind key (◀) simultaneously.

Rewind Play

INDEX
SCAN



Index Scan



During recording, press the re-wind key.

Recording Cancel

Rewind play

Press the rewind key (◀◀) and play key (▶) simultaneously. The tape is rewound to the beginning of tape, it is rapidly advanced to the beginning of tune, then the tune is played back.

Index scan

When the INDEX SCAN key is set to ON, the tape is rapidly advanced to the beginning of the each tune and the beginning of the tune is played back for about 10 seconds. When the desired tune is reached, press the play key (▶).

During this operation, the number on the right of the DPSS COUNTER indicates the number of the tune being searched (or played back).

Recording Cancel

(More than 4 seconds non-recorded section is required at the end of the previous recording, for this feature.)

1. Press the rewind key (◀◀) while the unit is in the record mode of operation. This causes the tape to be rewound to the beginning of the section.
2. To start recording again, push the REC/ARM PAUSE key.

REC/ARM PAUSE key

During recording, pressing this key makes about 4 seconds blank (non-recorded) section between tunes.

1. Press the REC/ARM PAUSE key during recording at the point blank section is required. The unit produces about 4 seconds blank section and then enters the record-pause mode.
2. Press the REC/ARM PAUSE key again to resume the recording.

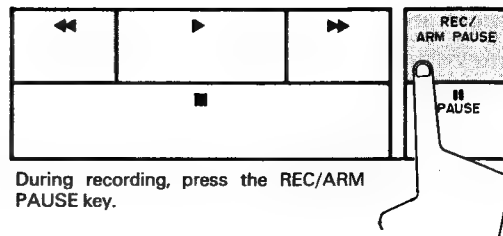
● To make less than 4 seconds blank

1. During recording, press the REC/ARM PAUSE key; the record indicator blinks. During blinking, press the REC/ARM PAUSE key again, the record muting is released and the recording is resumed before 4 seconds has elapsed.
2. During the record indicator blinks in (1), pressing the PAUSE key (II) enters the record-pause mode.

● To make more than 4 seconds blank

Keep pressing the REC/ARM PAUSE key for more than 4 seconds during recording so that the blank section of more than 4 seconds is made.

Releasing the key enters the record-pause mode.



BLANK SEARCH

Press the Blank Search key to detect the unrecorded section of the previously recorded tape or non-recorded section of more than 1 minute.

1. When this key is pressed, the tape is advanced to detect the non-recorded section of more than 1 minute. When the non-recorded section is detected, (the tape is fast-forwarded to the end of the non-recorded section), and then, the tape is rewound to the beginning of the non-recorded section and 4 seconds blank will be made and stop.
2. The linear tape counter displays the time of nonrecorded section and during recording, the displayed time is decreased to function as the remaining time display.



Blank Search Key

Notes:

Pressing the stop key releases the remaining time display.

Zero-Stop function

1. When the rewind key and the stop key are pressed simultaneously, the tape is rewound and stopped at the point " :00 " is displayed on the counter.
2. When the fast forward key and the stop key are pressed simultaneously, the tape is advanced and then stopped at the point " :00 " is displayed on the counter.

Notes:

When the tape stops, the counter displays within " :00 " ± 5 range.

Dolby Noise Reduction System

Dolby noise reduction system circuit reduces the tape hiss noise and distortion of the high frequency components on recording and playback.

Maintenance

As the tape rubs against the heads during recording and playback, oxide debris from the tape accumulates on the heads, guides, and pinch roller. To maintain the optimum recording and playback performance, periodically clean the entire tape path, including the heads (about every 10 hours of use).

Cleaning the heads section

1. Press the eject key and the cassette compartment will slide forward.
2. Pull up the cassette lid.
3. Clean the heads, pinch roller and capstan with a cotton swab slightly dampened with cleaning solvent (or denatured alcohol).

Note:

The heads and guides in the tape path are precisely adjusted. Do not exert excessive pressure on any parts while cleaning.

Head Demagnetization

The magnetized record/play head may degrade the sound quality and increase the noise. In this case, use the commercially available Head Eraser to demagnetize the head.

Timer stand by operation

By using the built-in TIMER STAND BY mechanism in combination with an audio timer (available from many dealers), the deck begins to record or play at any desired time.

Note on timer stand by switch

Before turning on the POWER switch, check to see that the TIMER stand by key is set at OFF. If the power is to be erased. The other settings REC and PLAY should be used only for timer-controlled operation.

Unattended recording

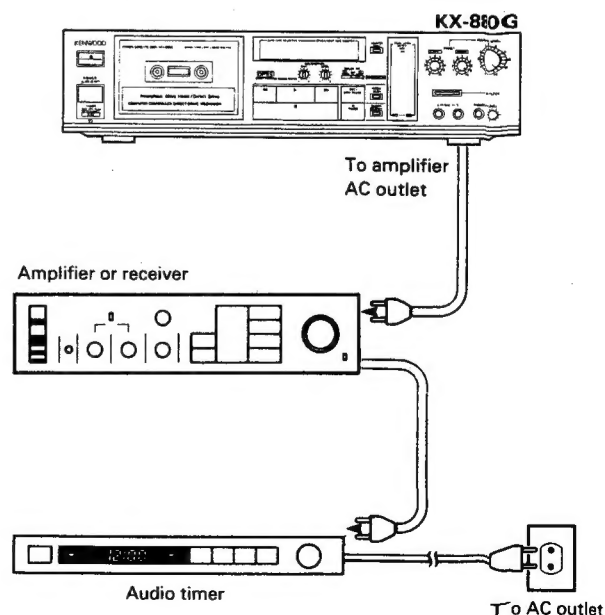
1. Connect the power cords to the components as shown in Figure and set the timer so that power is supplied to each component. (Timer setting procedures vary with the type of timer used. Follow the instructions of the timer's manual.)
2. Turn on the power switches of the components to be used for recording.
3. Tune to the station desired and set the record level.
4. Set the volume control of the amplifier to its minimum setting.
5. Set the timer to the required time referring to the timer's instruction manual so that the power will be switched ON at the preset time.
6. Set the TIMER stand by switch of the cassette tape deck to REC.
7. Power to the components will be switched ON at the preset time and recording will start.
8. Recording stops when the tape end is reached.

Note:

To ensure that the automatic shut off operates before the power is shut off, set the timer so that it operates for a little longer than the playing time of the tape.

Timer-controlled playback

1. Connect the timer as described to "Unattended recording".
2. Set the timer so that power is supplied to each component.
3. Turn on the power switches of the components used for playback.
4. Load a recorded tape and set each switch referring to "Playback procedure".
5. Adjust the volume control of the amplifier.
6. Rewind the tape to the start.
7. Set the timer to the required time.
8. Set the TIMER stand by switch of the cassette tape deck to PLAY.
9. The tape will automatically start playback at the preset time.
10. Playback stops when the tape end is reached.



Setting the calibration control knobs according to the type of cassette

Adjust the BIAS control knob and LEVEL control knob referring to the table below.

Tape Position	Manufacturer	Name of Tape	CALIBRATION	
			BIAS	LEVEL
			- 0 +	- 0 +
NORMAL	KENWOOD	ND	0	0
	BASF	LH-EI	0	0
		LH-MI	0	0
	DENON	DX-3	0	0
		DX-4	0	0
	Fuji	GT-I	0	0
	MAXELL	UR*1	0	0
		UD-I*2	0	0
		XLI	0	0
		XLI-S	0	0
	SONY	HF	0	0
		HF-S	0	0
		HF-ES*3	0	0
	TDK	D	0	0
		AD	0	0
CrO ₂	KENWOOD	CD	0	0
	BASF	CR-SII	0	0
		CR-EII	0	0
	DENON	HD-6	0	0
		HD-8	0	0
	Fuji	GT-II	0	0
	MAXELL	UD II	0	0
		XL II	0	0
		XL II-S	0	0
	SONY	UCX	0	0
		UCX-S	0	0
	TDK	SA	0	0
		SA-X	0	0
METAL	KENWOOD	MD	0	0
	DENON	HD-M	0	0
	MAXELL	MX	0	0
	SONY	Metal-ES	0	0
	TDK	MA	0	0

*1 Except for Europe

*2 UDS-I for USA and Canada

*3 Not for USA and Canada

Troubleshooting

What appears to be a malfunction may not always be serious. First, check the following items before consult the service personnel.

Symptom	Causes	Disposal
Numbers on the tape counter differs when replacing the tape. (C-46, C-90 cassettes, etc.)	The tape thickness or cassette shell design differs according to its length or models. (Difference of reel hub.)	Caused by the difference of tape model, it's not a malfunction.
Recording is impossible by pressing the REC/ARM PAUSE key.	<ol style="list-style-type: none"> 1. The safety tab provided with the cassette shell is broken. 2. Cassette holder is not closed completely. 3. Record input level knob is set to minimum position. 	<ol style="list-style-type: none"> 1. Use the cassette with its safety tab. (When recording using the cassette with the tab broken, block hole with adhesive tape.) 2. Close the cassette holder completely. 3. Refer to the "Tape Recording" section.
Sound is not heard even when the play key is pressed.	<ol style="list-style-type: none"> 1. Audio cords are connected incorrectly. 2. Head is dirty. 3. Tape cannot be advanced caused by uneven winding. 4. Unrecorded tape is used. 	<ol style="list-style-type: none"> 1. Refer to the "Connections" section. 2. Refer to the "Head Maintenance" section. 3. Replace the cassette. 4. Use the recorded tape.
Sound is husky or high frequency notes are not heard.	<ol style="list-style-type: none"> 1. Head is dirty. 2. Tape is damaged. 	<ol style="list-style-type: none"> 1. Refer to the "Head Maintenance" section. 2. Replace the cassette.
Sound is distorted.	<ol style="list-style-type: none"> 1. Recording level is too high when recording. 2. Source itself is distorted. 	Refer to the "Tape Recording" section.
Too noisy.	<ol style="list-style-type: none"> 1. Head is magnetized. 2. Noise is inducted from the external equipment. 3. Recording level is too low. 4. Dolby encoded tape is played back with Dolby switch OFF. 	<ol style="list-style-type: none"> 1. Demagnetize the head using head eraser. 2. Keep the unit away from other electrical equipment. 3. Refer to the "Tape Recording" section. 4. Set the Dolby NR switch to ON. It is recommended to perform recording always using the Dolby NR switch ON.
Sound is winding.	<ol style="list-style-type: none"> 1. Capstan or pinch roller is dirty. 2. Tape is wound unevenly. 	<ol style="list-style-type: none"> 1. Refer to the "Head Maintenance" section. 2. Wind the tape again by fast-forwarding or rewinding.
Playback or recording starts when the power is turned ON.	Timer stand-by switch is set to PLAY or REC position.	Set the Timer Stand-by switch to OFF when the timer-playback or timer-recording is not used.
DPSS does not function correctly.	The unsuitable tape having shorter blank section between turns is used.	Refer to the "DPSS" section.
The unit does not function even when the operation key is pressed.	<ol style="list-style-type: none"> 1. The operation key is pressed immediately after the power is turned on (before 3 seconds have elapsed.) 2. Cassette tape is not loaded. 3. The tape cannot be wound (advanced) because the tape is wound unevenly. 	<ol style="list-style-type: none"> 1. After 3 seconds have elapsed since the power is turned ON, press the operation key. 2. Load a cassette. 3. Replace the cassette.
When recording, the peak values differ between the left and right channels on the peak level meter.	The preset volume level knobs are differ between the left and right channels.	Refer to the "Tape Recording" section.

Note:

The 120-minute cassette tapes are unrecommendable because they are too thin and may be damaged by the repeated use.

Specifications

Type	Front Loading Stereo Cassette Deck with Dolby B - C NR System
Track System	4-Track, 2-Channel Stereo/Mono, Recording/Playback
Recording System	AC Bias System (Bias Frequency: 105 kHz)
Erasing System	AC System
Tape Speed	4.76 cm/sec (1-7/8 ips)
Heads	Record and Playback Head x1 (Amorphous Alloy) Erase Head x1 (Double Gap Ferrite)
Motors	Capstan Drive: FG Servo Direct Drive Motor Reel Drive: DC Motor Mechanism Drive: DC Motor
Fast Winding Time	Approx. 70 seconds with C-60 tape
Frequency Response:	
Normal Tape	20 Hz to 18,000 Hz, ± 3 dB
CrO ₂ Tape	20 Hz to 19,000 Hz, ± 3 dB
Metal Tape	20 Hz to 22,000 Hz, ± 3 dB
Signal to Noise Ratio:	
Dolby C Type NR ON	74 dB (Metal Tape)
Dolby B Type NR ON	67 dB (Metal Tape)
Dolby NR OFF	59 dB (Metal Tape)
Harmonic Distortion	Less than 0.8% (at 1 kHz, 0 VU with Metal Tape)
Wow and Flutter	0.027% (W.R.M.S.) 0.08% (DIN)
Input Sensitivity/Impedance:	
LINE x 2	77.5 mV/50 kohm
Microphones x 2	0.3 mV/600 ohm
Output Level/Load Impedance:	
LINE x 2	0.49 V (0 VU)/3 kohms
Headphones x 1	0.85 mW/8 ohms
Power Requirements	AC 120V, 60 Hz: U.S.A. and Canada Models AC 120 V/220-240 V (Switchable), 50/60 Hz: Other Countries
Power Consumption	30 watts
Dimensions	W: 440 mm (17-5/16") H: 111 mm (4-3/8") D: 322 mm (12-11/16")
Weight	5.9 kg (13.0 lb)
Supplied Accessories	Audio Connection Cables x 2
Reference Tapes	Normal: KENWOOD ND-60 CrO ₂ : KENWOOD CD-60 Metal: KENWOOD MD-60

We follow a policy of continuous development.
For this reason specifications may be changed without notice.